

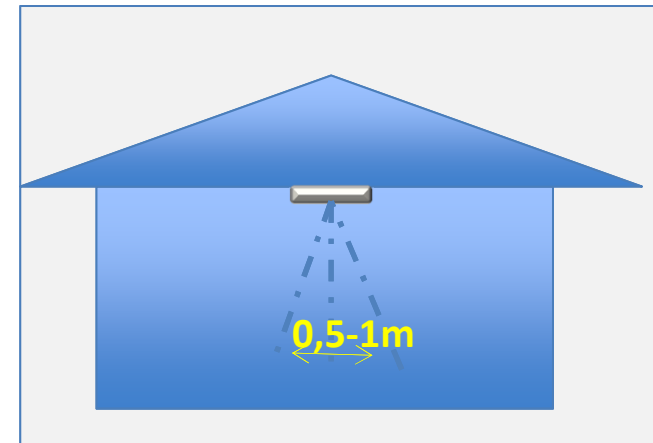
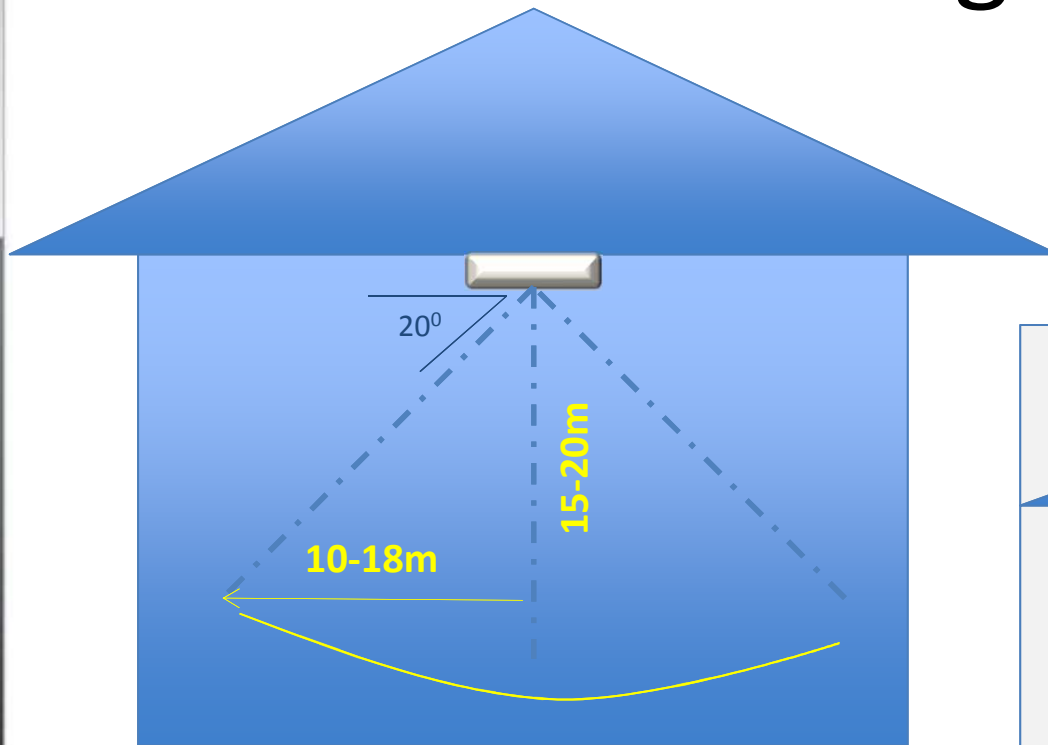


Roger-GPS Ltd

GPS Repeaters and solutions examples

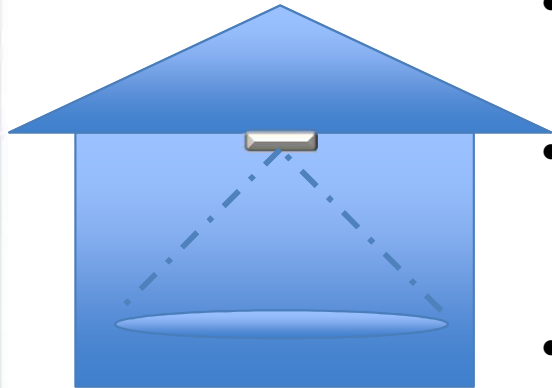


Coverage



- How big is the area one Roger-GPS repeater covers:
 - The diameter as about 30m depending on the construction material
 - The height is up to 15-20m depending on the construction material
 - The material (cars, other big metal particles) create reflecting waves that may influence the area coverage
 - The repeater has 40dB gain adjustment so you can go from 30m down to less than 1 m diameter

Roger repeater signal radiation



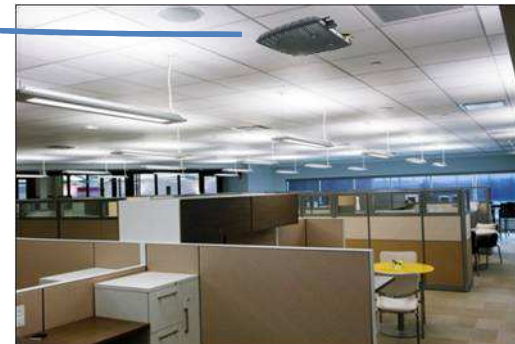
- Roger-GPS repeater has regulated output power max that can never go above -60dBm, that is 0,000001 milliwatts = 0,0000000001W
- The antenna suspends 8dB max $\pm 70^\circ$ from Zenith. So straight from the antenna you get the max power. The antenna is placed in the center of the repeater.
- The repeater has not been measured for SAR, but calculating from the maximum output power that the repeater can give, the theoretical maximum possible SAR is 0.000001 milliwatts /kg, i.e. 0.0000000001 W/kg.
- The equipment conforms to the essential requirements of article 3.1.b (EMC) and article 3.2 (effective use of radio spectrum) of Directive 1999/5/EC. TCF ref. 3.6.2008. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0005:en:NOT>
- Putting into service is already allowed in the following Member States: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Italy, Slovakia, Spain, Sweden, The Netherlands. The product has been declared in accordance with the R&TTE Directive including avoidance of harmful interference (The equipment conforms to the essential requirements of article 3.1.b (EMC) and article 3.2 (effective use of radio spectrum) of Directive 1999/5/EC). The equipment is installed and used by professionals only, that is to say that it is not targeted for regular consumers.



ROGER GPS solution 1

**With the ROGER GPS Repeater Package (GPSR-BP) you can make this.
Is the distance enough?**

20m

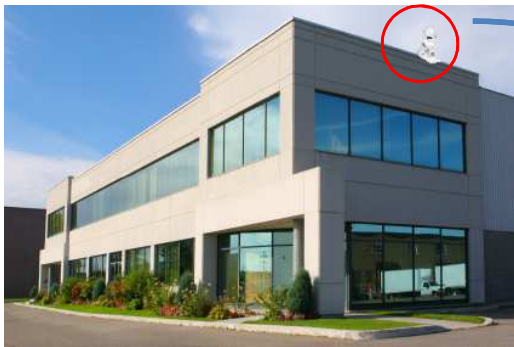


The repeated GPS signal inside is the one you get from the antenna position outside.



ROGER GPS solution 2

With the ROGER GPS Repeater Package (GPSR-BP) and Amplifier (GPSR-A)



5-10m



Amplifier

The repeated GPS signal inside is the one you get from the antenna position outside.

Up to 40m with RG58 cable and up to 120-150m with ECOFLEX

Repeater





ROGER GPS 3

2 pcs ROGER GPS Repeater Package (GPSR-BP or GPSR-BPE)



20-80m



20-80m



Both rooms/areas with own antenna.
The basic package includes
20m RG58 antenna cable.
With ECOFLEX cable you can have
up to 80m cable length from antenna.



ROGER GPS solution 4

With the ROGER GPS Repeater Package (GPSR-BP) and Splitter/Amplifier (GPSR-SA)



5-20m



Splitter & Amplifier

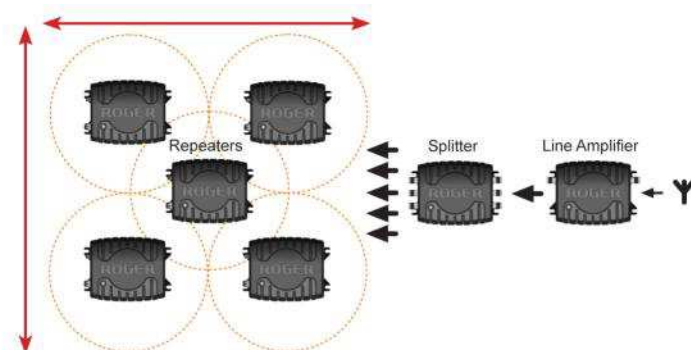
The both Repeaters repeat GPS signal inside which is the one you get from the antenna position outside.

Repeater



Up to 100m with ECOFLEX cable

Repeater





ROGER GPS Cable lengths

Cable length calculator	Cable attenuation/m	At antenna signal level dB	line Amplifier adds	Min. level of dB at the repeater	Max length m	Max length ft.
RG-58 cable	0,65	35	0	16	29	96
RG214/RG213	0,3	35	0	16	63	208
ECOFLEX	0,2	35	0	16	95	312
RG-58 and 1 Line Amplifier	0,65	35	18	16	55	182
RG214/RG213 and 1 Line Amplifier	0,3	35	18	16	120	394
RG214/RG213 and 2 Line Amplifier	0,3	35	34	16	177	580
				16		
Ecoflex and 1 Line Amplifier	0,2	35	18	16	185	607
Ecoflex and 2 Line Amplifier	0,2	35	34	16	265	869
ROGER Line Amplifier adds 18 dB	but termination takes 1 dB					

Ask for custom made cables!

